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KICKAPOO ENVIRONMENTAL OFFICE

The Green Clan

# Biggest Flood Since 1993

Luke Terry, Director, 785-486-2601 x1

The evening of May 28th brought an estimated 8 inches of rain downstream from the Sabetha area. From speaking with several Tribal Members, the Kickapoo community hasn't witnessed floods this damaging since the summer of 1993. Eyewitness accounts from Tribal First Responders described the water being only 1 foot lower than K-20 Highway near the Powwow Grounds!


As a result of the flooding, local roads, culverts, agricultural fields, and amenities were damaged. The worst road damage occurred along 130th Road from Foxtail to Coyote. The Powwow Grounds took quite a hit, causing damage to the horseshoe pit, bleachers, road fencing, shower house and the entire electrical system.

The Kickapoo Tribe is working with its insurance provider to assess and recover costs on damage incurred on insured properties. The Federal Emergency Management Agency (FEMA) is conducting an assessment on non-insurable properties (roads, bridges, culverts, etc.). Big thanks to the Kickapoo Roads Department, Police Department, and Fire Department for stepping up to keep everyone safe during the storm and its aftermath. The Roads Department was quick to make necessary road repairs.

# The Green Clan

## Flower Power

By Matt Bosworth, Wetlands Coordinator, 486-2601 x5

It's that time of year again: Plants are in maximum growth mode and are beginning to show their fancy flower adornments. You might notice some of these pretty flowers while driving. Here's a guide, for folks who aren't familiar, with 5 of the most common flowers in bloom. Note: All of these are in full bloom ½ mile west of the Powwow Grounds. I encourage you to check them out, if you haven't already. **Please do not drive your vehicle through the grassland** as the area is pristine prairie and very susceptible to damage from vehicle tracks.

1. **Pale Purple Coneflower** (*Echinacea pallid—photo right*)
   This is very common this time of year and easy to identify. A single white and pinkish daisy-like flower sits at the top of the stem. It is large, 3" across, with a reddish brown cone, and surrounded by 12-20 petals that droop downward.

   **Uses:** Leaves- used in tea and treats burns/toothaches, Roots- chewed for cold remedy and powered in tea

2. **Foxglove Beardtongue** (*Penstemon digitalis*)
   Fairly easy to distinguish at this time with its bright white bell shaped and horizontally facing flowers. Flowers are smaller, with 5 petals each and are typically in clusters of 3 and sometimes more. One of the five stamens (male organ) has a hairy appearance which gives it the name beardtongue.

   **Uses:** Chewed for toothache relief

3. **Birds-foot Trefoil** (*Lotus corniculatus– photo right*)
   This plant is actually native to Europe but has since been transported here. It is in the bean family and often eaten by game birds and small mammals. Its flowers are yellow and resemble a bird's foot in shape.

**Uses:** Quality food for wildlife and livestock, erosion control.

4. **Lead Plant** (Amorpha canescens)
   This is another plant in the bean family. It has a silvery-gray appearance from dense hairs on the leaves and stems; this coloration is what gives this plant its name. It has several spires with small purple flowers in disc shaped arrangements at the top of each plant.

   **Uses:** Leaves can you used in tea or can be smoked, livestock feed, its presence is an indicator of a healthy prairie.

# The Green Clan

## Butterflies: An Indication of Healthy Prairie

By Mike Kelley,
Brownfields Coordinator, 486-2601 x6

The Regal Fritillary (*Speyeria idalia*) is a butterfly that is native to tallgrass prairie habitats. It is sometimes mistaken for a Monarch Butterfly, but if you look closely at its hind-wings, you can see they are very distinct. The hind-wings are a dark color with white spots, whereas a monarch's are orange with black veins.

The caterpillars of the Regal Fritillary prefer to eat Birdsfoot Violet and Prairie Violet. They lay eggs in late summer. Newly hatched caterpillars hibernate and begin eating the following spring. The adults can be seen appearing in early summer and may be present through September. Only one generation appears in a year. The adult males live about a month, with the females living about two. During their brief adult life, **regal fritillaries feed on nectar, mostly from milkweeds, thistles, alfalfa and ironweeds.**

The known range of the Regal Fritillary used to stretch from New England all the way to Montana and as far south as Oklahoma. Unfortunately, the species is becoming increasingly rare due to habitat loss, pollution, and other human related factors. This species is currently listed as having a high risk of endangerment.

If you have them in your area, Regal Fritillaries can be seen all summer long. If you do see them, you know that you are in a high-quality tall grass prairie - a remnant of what used to be the most extensive habitat type in North America. If you spot one on the reservation please make note of the general location and contact the Kickapoo Environmental Office.

## Let's Clear the Air

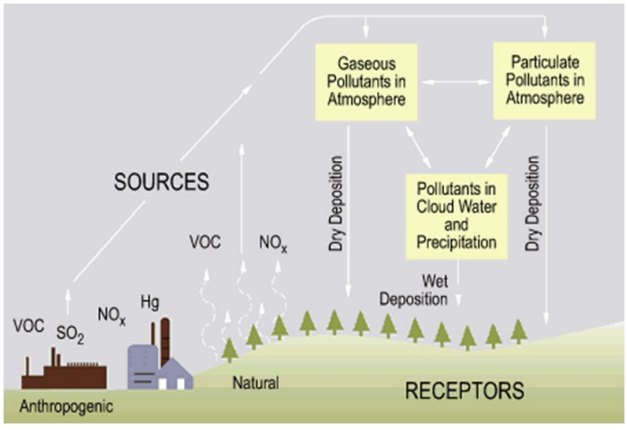
By Scott Weir, Air Quality Coordinator, 486-2601 x2

Pollutants are removed from the air through a process called deposition. This process transfers pollution from the air to objects (such as trees), the ground, and bodies of water. These pollutants include sulfur and nitrogen, which contribute to acid rain, and mercury. These chemicals come from the coal burned at power plants, car and truck exhaust and natural sources like volcanoes. There are two kinds of deposition: dry deposition, and wet deposition.

About half of the acid pollutants in the atmosphere fall back to Earth through dry deposition. When the weather is dry, the acid chemicals attach to dust or smoke particles and fall out of the air and stick to the ground, buildings, cars, and trees. The dry particles can be washed from these surfaces when it rains, and the runoff water becomes acidic.

Wet deposition refers to acidic rain, fog, and snow. When the weather is wet, the acid pollutants are actually washed from the air and fall to the ground in water drops. As this acidic water flows over and through the ground, it affects a variety of plants and animals. The strength of the effects depends on several factors, including how acidic the water is, the chemistry of the soils involved, and the types of fish, trees, and other living things that rely on the water.

Your Environmental Office will begin collecting wet deposition samples in 2014. This data will be used to connect air and water pollution measurements together to evaluate critical loads. Critical loads are "tipping point" levels of pollution at which environmental damage begins. This information can be used to determine the relative health of our local environment.



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***Working Together for a Better Community!***

**These butterflies are native to the area, yet they are under threat…..**

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